Dated: September 8, 2017.

Cecil Rodrigues,

Acting Regional Administrator, Region III.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R01–OAR–2017–0083; FRL–9968–43–Region 1]

Air Plan Approval; New Hampshire; Nonattainment Plan for the Central New Hampshire SO_2 Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the State Implementation Plan (SIP) revision that the State of New Hampshire submitted to EPA on January 31, 2017 for attaining the 1-hour sulfur dioxide (SO_2) primary national ambient air quality standard (NAAQS) for the Central New Hampshire Nonattainment Area. This plan (herein called a ''nonattainment plan'') includes New Hampshire's attainment demonstration and other elements required under the Clean Air Act (CAA). In addition to an attainment demonstration, the nonattainment plan addresses the requirement for meeting reasonable further progress (RFP) toward attainment of the NAAQS, reasonably available control measures and reasonably available control technology (RACM/RACT), base-year and projection-year emission inventories, and contingency measures. As a part of approving the attainment demonstration, EPA is also proposing to approve SO_2 emission limits and associated compliance parameters for Merrimack Station into the New Hampshire SIP. EPA proposes to conclude that New Hampshire has appropriately demonstrated that the nonattainment plan provisions provide for attainment of the 2010 1-hour primary SO_2 NAAQS in the Central New Hampshire Nonattainment Area by the applicable attainment date and that the nonattainment plan meets the other applicable requirements under the CAA.

DATES: Comments must be received on or before October 30, 2017.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R01–OAR–2017–0083 at *http://www.regulations.gov,* or via email to *biton.leiran@epa.gov.* For comments submitted at *Regulations.gov*, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *http://www.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Leiran Biton, EPA New England, 5 Post Office Square Suite 100, Mail Code OEP05–2, Boston, MA 02109–3912; phone: 617–918–1267; fax: 617–918–0267; email: *biton.leiran@epa.gov.*

SUPPLEMENTARY INFORMATION:

Throughout this document whenever ''we,'' ''us,'' or ''our'' is used, we mean EPA.

Table of Contents

I. Why was New Hampshire required to submit an SO_2 plan for the Central New Hampshire Nonattainment area?

On June 22, 2010, EPA promulgated a new 1-hour primary SO_2 NAAQS of 75 parts per billion (ppb), which is met at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations does not exceed 75 ppb, as determined in accordance with appendix T of 40 CFR part 50. *See* 75 FR 35520, codified at 40 CFR 50.17(a)–(b). On August 5, 2013, EPA designated a first set of 29 areas of the country as nonattainment for the 2010 SO_2 NAAQS, including the Central New Hampshire Nonattainment Area within the State of New Hampshire. *See* 78 FR 47191, codified at 40 CFR part 81, subpart C. These area designations were effective October 4, 2013. Section 191 of the CAA directs states to submit SIPs for areas designated as nonattainment for the SO_2 NAAQS to EPA within 18 months of the effective date of the designation, *i.e.,* by no later than April 4, 2015 in this case. These SIPs are required to demonstrate that their respective areas will attain the NAAQS as expeditiously as practicable, but no later than 5 years from the effective date of designation, which is October 4, 2018.

For a number of areas, including the Central New Hampshire Nonattainment Area, EPA published a notice on March 18, 2016 that New Hampshire and other pertinent states had failed to submit the required SO_2 nonattainment plan by the submittal deadline. *See* 81 FR 14736. This finding initiated a deadline under CAA section 179(a) for the potential imposition of new source and highway funding sanctions, and for EPA to promulgate a federal implementation plan (FIP) under section 110(c) of the CAA. In response to the requirement for SO_2 nonattainment plan submittals, New Hampshire submitted a nonattainment plan for the Central New Hampshire Nonattainment Area on January 31, 2017. Pursuant to New Hampshire's January 31, 2017 submittal and EPA's subsequent letter dated March 20, 2017 to New Hampshire finding the submittal complete and noting the stopping of the sanctions deadline, these sanctions under section 179(a) will not be imposed. However, to

stop the deadline for EPA to promulgate a FIP, the state must have made the necessary complete submittal and EPA must have approved the submittal as meeting applicable requirements no later than two years after the prior finding of failure to submit. Therefore, EPA remains under a FIP deadline of April 18, 2018. This FIP obligation will not apply if EPA issues final approval of New Hampshire's SIP submittal by April 18, 2018.

The remainder of this preamble describes the requirements that nonattainment plans must meet in order to obtain EPA approval, provides a review of the State's plan with respect to these requirements, and describes EPA's proposed action on the plan.

II. Requirements for SO_2 Nonattainment Area Plans

Nonattainment SIPs must meet the applicable requirements of the CAA, and specifically CAA sections 110, 172, 191 and 192. EPA's regulations governing nonattainment SIPs are set forth at 40 CFR part 51, with specific procedural requirements and control strategy requirements residing at subparts F and G, respectively. Soon after Congress enacted the 1990 Amendments to the CAA, EPA issued comprehensive guidance on SIPs in a document entitled, ''General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,'' published at 57 FR 13498 (April 16, 1992) (General Preamble). Among other things, the General Preamble addressed SO_2 SIPs and fundamental principles for SIP control strategies. *Id.,* at 13545–49, 13567–68. On April 23, 2014, EPA issued recommended guidance for meeting the statutory requirements in SO_2 SIPs, in a document entitled, ''Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions,'' available at *https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance_nonattainment_sip.pdf.* In this guidance, EPA described the statutory requirements for a complete nonattainment area SIP, which includes: An accurate emissions inventory of current emissions for all sources of SO_2 within the nonattainment area, an attainment demonstration, demonstration of RFP, implementation of RACM (including RACT), an approvable NSR program, enforceable emissions limitations and control measures as needed for timely attainment, and adequate contingency measures for the affected area.

In order for EPA to fully approve a SIP as meeting the requirements of CAA sections 110, 172, 191, and 192, and EPA's regulations at 40 CFR part 51, the SIP for the affected area needs to demonstrate to EPA's satisfaction that each of the aforementioned requirements has been met. Under CAA sections 110(l) and 193, EPA may not approve a SIP that would interfere with any applicable requirement concerning NAAQS attainment and RFP, or any other applicable requirement under the CAA. Furthermore, no requirement in effect, or required to be adopted by an order, settlement, agreement, or plan in effect before November 15, 1990, in any nonattainment area for any air pollutant, may be modified in any manner unless it ensures equivalent or greater emission reductions of such air pollutant.

III. Attainment Demonstration and Longer-Term Averaging

CAA sections 172(c)(1) and (6) direct states with areas designated as nonattainment to demonstrate that the submitted plan provides for attainment of the NAAQS. Forty CFR part 51, subpart G further delineates the control strategy requirements that SIPs must meet, and EPA has long required that all SIPs and control strategies reflect four fundamental principles of quantification, enforceability, replicability, and accountability. *See* General Preamble, at 13567–68. SO_2 attainment plans must consist of two components: (1) Emission limits and other control measures that assure implementation of permanent, enforceable, and necessary emission controls; and (2) a modeling analysis that meets the requirements of 40 CFR part 51, appendix W (the *Guideline on Air Quality Models;* ''the *Guideline*'') and demonstrates that these emission limits and control measures provide for timely attainment of the primary SO_2 NAAQS as expeditiously as practicable, but by no later than the attainment date for the affected area. In all cases, the emission limits and control measures must be accompanied by appropriate methods and conditions to determine compliance with the respective emission limits and control measures and must be quantifiable (*i.e.,* a specific amount of emission reduction can be ascribed to the measures), fully enforceable (specifying clear, unambiguous, and measurable requirements for which compliance can be practicably determined), replicable (the procedures for determining compliance are sufficiently specific and non-subjective so that two independent entities applying the procedures would obtain the same result), and accountable (source specific limits must be permanent and must reflect the assumptions used in the SIP demonstrations).

EPA's April 2014 guidance recommends that the emission limits be expressed as short-term average limits (*e.g.,* addressing emissions averaged over one or three hours), but also describes the option to utilize emission limits with longer averaging times of up to 30 days so long as the state meets various suggested criteria. *See* April 2014 guidance, pp. 22 to 39. The guidance recommends that—should states and sources utilize longer averaging times—the longer-term average limit should be set at an adjusted level that reflects a stringency comparable to the 1-hour average limit at the critical emission value shown to provide for attainment that the plan otherwise would have set.

The April 2014 guidance provides an extensive discussion of EPA's rationale for concluding that appropriately set comparably stringent limitations based on averaging times as long as 30 days can be found to provide for attainment of the 2010 SO_2 NAAQS. In evaluating this option, EPA considered the nature of the standard, conducted detailed analyses of how 30-day average limits impact attainment of the standard, and carefully reviewed how best to achieve an appropriate balance among the various factors that warrant consideration in judging whether a state's plan provides for attainment. *Id.* at pp. 22 to 39. *See* also *id.* at appendices B, C, and D.

As specified in 40 CFR 50.17(b), the 1-hour primary SO_2 NAAQS is met at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of daily maximum 1-hour concentrations is less than or equal to 75 parts per billion. In a year with 365 days of valid monitoring data, the 99th percentile would be the fourth highest daily maximum 1-hour value. The 2010 SO_2 NAAQS, including this form of determining compliance with the standard, was upheld by the U.S. Court of Appeals for the District of Columbia Circuit in *Nat'l Envt'l Dev. Ass'n's Clean Air Project* v. *EPA,* 686 F.3d 803 (D.C. Cir. 2012). Because the standard has this form, a single exceedance does not create a violation of the standard. Instead, at issue is whether a source operating in compliance with a properly set longer-term average could cause exceedances, and if so what the resulting frequency and magnitude of such exceedances will be, and in particular whether EPA can have reasonable confidence that a properly set longer-term average limit will provide that the average fourth highest daily maximum value will be at or below 75 ppb. A synopsis of how EPA judges whether such plans

''provide for attainment,'' based on modeling of projected allowable emissions and in light of the form of the NAAQS for determining attainment at monitoring sites, follows.

For plans for SO_2 based on 1-hour emission limits, the standard approach is to conduct modeling using fixed emission rates. The maximum emission rate that would be modeled to result in attainment (*i.e.,* in an ''average year'' [1] shows three, not four days with maximum hourly levels exceeding 75 ppb) is labeled the ''critical emission value.'' The modeling process for identifying this critical emission value inherently considers the numerous variables that affect ambient concentrations of SO_2, such as meteorological data, background concentrations, and topography. In the standard approach, the state would then provide for attainment by setting a continuously applicable 1-hour emission limit at this critical emission value.

EPA recognizes that some sources have highly variable emissions, for example due to variations in fuel sulfur content and operating rate, that can make it extremely difficult, even with a well-designed control strategy, to ensure in practice that emissions for any given hour do not exceed the critical emission value. EPA also acknowledges the concern that longer-term emission limits can allow short periods with emissions above the critical emission value, which, if coincident with meteorological conditions conducive to high SO_2 concentrations, could in turn create the possibility of a NAAQS exceedance occurring on a day when an exceedance would not have occurred if emissions were continuously controlled at the level corresponding to the critical emission value. However, for several reasons, EPA believes that the approach recommended in our guidance document suitably addresses this concern. First, from a practical perspective, EPA expects the actual emission profile of a source subject to an appropriately set longer-term average limit to be similar to the emission profile of a source subject to an analogous 1-hour average limit. EPA expects this similarity because it has recommended that the longer-term average limit be set at a level that is comparably stringent to the otherwise applicable 1-hour limit (reflecting a downward adjustment from the critical emission value) and that takes the source's emission profile into account. As a result, EPA expects either form of emission limit to yield comparable air quality.

Second, from a more theoretical perspective, EPA has compared the likely air quality with a source having maximum allowable emissions under an appropriately set longer-term limit, as compared to the likely air quality with the source having maximum allowable emissions under the comparable 1-hour limit. In this comparison, in the 1-hour average limit scenario, the source is presumed at all times to emit at the critical emission level, and in the longer-term average limit scenario, the source is presumed occasionally to emit more than the critical emission value but on average, and presumably at most times, to emit well below the critical emission value. In an ''average year,'' compliance with the 1-hour limit is expected to result in three exceedance days (*i.e.,* three days with hourly values above 75 ppb) and a fourth day with a maximum hourly value at 75 ppb. By comparison, with the source complying with a longer-term limit, it is possible that additional exceedances would occur that would not occur in the 1-hour limit scenario (if emissions exceed the critical emission value at times when meteorology is conducive to poor air quality). However, this comparison must also factor in the likelihood that exceedances that would be expected in the 1-hour limit scenario would not occur in the longer-term limit scenario. This result arises because the longer-term limit requires lower emissions most of the time (because the limit is set well below the critical emission value), so a source complying with an appropriately set longer-term limit is likely to have lower emissions at critical times than would be the case if the source were emitting as allowed with a 1-hour limit.

As a hypothetical example to illustrate these points, suppose a source always emits 1,000 pounds of SO_2 per hour and results in air quality at the level of the NAAQS (*i.e.,* results in a design value of 75 ppb). Suppose further that in an ''average year,'' these emissions cause the five highest maximum daily average 1-hour concentrations to be 100 ppb, 90 ppb, 80 ppb, 75 ppb, and 70 ppb. Then suppose that the source becomes subject to a 30-day average emission limit of 700 pounds per hour. It is theoretically possible for a source meeting this limit to have emissions that occasionally exceed 1,000 pounds per hour, but with a typical emission profile, emissions would much more commonly be between 600 and 800 pounds per hour. In this simplified example, assume a zero background concentration, which allows one to assume a linear relationship between emissions and air quality. (A nonzero background concentration would make the mathematics more difficult but would give similar results.) Air quality will depend on what emissions occur during critical hours, but suppose that emissions at the relevant times on these 5 days are 800 pounds per hour, 1,100 pounds per hour, 500 pounds per hour, 900 pounds per hour, and 1,200 pounds per hour, respectively. (This is a conservative example because the average of these emissions, 900 pounds per hour, is well over the 30-day average emission limit.) These emissions would result in daily maximum 1-hour concentrations of 80 ppb, 99 ppb, 40 ppb, 67.5 ppb, and 84 ppb. In this example, the fifth day would have an exceedance that would not otherwise have occurred, but the third and fourth days would not have exceedances that otherwise would have occurred. In this example, the fourth highest maximum daily concentration under the 30-day average would be 67.5 ppb.

This simplified example illustrates the findings of a more complicated statistical analysis that EPA conducted using a range of scenarios using actual plant data. As described in appendix B of EPA's April 2014 SO_2 nonattainment planning guidance, EPA found that the requirement for lower average emissions is highly likely to yield better air quality than is required with a comparably stringent 1-hour limit. Based on analyses described in appendix B of our April 2014 guidance, EPA expects that an emission profile with maximum allowable emissions under an appropriately set comparably stringent 30-day average limit is likely to have the net effect of having a *lower* number of exceedances and better air quality than an emission profile with maximum allowable emissions under a 1-hour emission limit at the critical emission value. This result provides a compelling policy rationale for allowing the use of a longer averaging period in appropriate circumstances where the facts indicate this result can be expected to occur.

The question then becomes whether this approach—which is likely to produce a lower number of overall exceedances even though it may produce some unexpected exceedances above the critical emission value—meets the requirement in section 110(a)(1) and 172(c)(1) and (6) for state implementation plans to ''provide for

[1] An ''average year'' is used to mean a year with average air quality. While 40 CFR 50 appendix T provides for averaging three years of 99th percentile daily maximum values (*e.g.,* the fourth highest maximum daily concentration in a year with 365 days with valid data), this discussion and an example below uses a single ''average year'' in order to simplify the illustration of relevant principles.

attainment'' of the NAAQS. For SO_2, as for other pollutants, it is generally impossible to design a nonattainment plan in the present that will guarantee that attainment will occur in the future. A variety of factors can cause a well-designed attainment plan to fail and unexpectedly not result in attainment, for example if meteorology occurs that is more conducive to poor air quality than was anticipated in the plan. Therefore, in determining whether a plan meets the requirement to provide for attainment, EPA's task is commonly to judge not whether the plan provides absolute certainty that attainment will in fact occur, but rather whether the plan provides an adequate level of confidence of prospective NAAQS attainment. From this perspective, in evaluating use of a 30-day average limit, EPA must weigh the likely net effect on air quality. Such an evaluation must consider the risk that occasions with meteorology conducive to high concentrations will have elevated emissions leading to exceedances that would not otherwise have occurred, and must also weigh the likelihood that the requirement for lower emissions on average will result in days not having exceedances that would have been expected with emissions at the critical emission value. Additional policy considerations, such as in this case the desirability of accommodating real world emissions variability without significant risk of violations, are also appropriate factors for EPA to weigh in judging whether a plan provides a reasonable degree of confidence that the plan will lead to attainment. Based on these considerations, especially given the high likelihood that a continuously enforceable limit averaged over as long as 30 days, determined in accordance with EPA's guidance, will result in attainment, EPA believes as a general matter that such limits, if appropriately determined, can reasonably be considered to provide for attainment of the 2010 SO_2 NAAQS.

The April 2014 guidance offers specific recommendations for determining an appropriate longer-term average limit. The recommended method starts with determination of the 1-hour emission limit that would provide for attainment (*i.e.,* the critical emission value), and applies an adjustment factor to determine the (lower) level of the longer-term average emission limit that would be estimated to have a stringency comparable to the otherwise necessary 1-hour emission limit. This method uses a database of continuous emission data reflecting the type of control that the source will be using to comply with the SIP emission limits, which (if compliance requires new controls) may require use of an emission database from another source. The recommended method involves using these data to compute a complete set of emission averages, computed according to the averaging time and averaging procedures of the prospective emission limitation. In this recommended method, the ratio of the 99th percentile among these longer-term averages to the 99th percentile of the 1-hour values represents an adjustment factor that may be multiplied by the candidate 1-hour emission limit to determine a longer-term average emission limit that may be considered comparably stringent.[2] The guidance also addresses a variety of related topics, such as the potential utility of setting supplemental emission limits, such as mass-based limits, to reduce the likelihood and/or magnitude of elevated emission levels that might occur under the longer-term emission rate limit.

Preferred air quality models for use in regulatory applications are described in appendix A of EPA's *Guideline on Air Quality Models.* In 2005, EPA promulgated AERMOD as the Agency's preferred near-field dispersion modeling for a wide range of regulatory applications addressing stationary sources (for example in estimating SO_2 concentrations) in all types of terrain based on extensive developmental and performance evaluation. On December 20, 2016, EPA revised the *Guideline,* which provided additional regulatory options and updated methods for dispersion modeling with AERMOD; the updates became effective on May 22, 2017. Supplemental guidance on modeling for purposes of demonstrating attainment of the SO_2 standard is provided in appendix A to the April 23, 2014 SO_2 nonattainment area SIP guidance document referenced above. Appendix A of the guidance provides extensive guidance on the modeling domain, source inputs, assorted types of meteorological data, and background concentrations. Consistency with the recommendations in this guidance is generally necessary for the attainment demonstration to offer adequately reliable assurance that the plan provides for attainment.

As stated previously, attainment demonstrations for the 2010 1-hour primary SO_2 NAAQS must demonstrate future attainment and maintenance of the NAAQS in the entire area designated as nonattainment (*i.e.,* not just at the violating monitor) by using air quality dispersion modeling to show that the mix of sources and enforceable control measures and emission rates in an identified area will not lead to a violation of the SO_2 NAAQS. For a short-term (*e.g.,* 1-hour) standard, EPA believes that dispersion modeling using allowable emissions and addressing stationary sources in the affected area (and in some cases those sources located outside the nonattainment area which may affect attainment in the area) is technically appropriate, efficient, and effective in demonstrating attainment in nonattainment areas because it takes into consideration combinations of meteorological and emission source operating conditions that may contribute to peak ground-level concentrations of SO_2.

The meteorological data used in the analysis should generally be processed with the most recent version of AERMET. Estimated concentrations should include ambient background concentrations, should follow the form of the standard, and should be calculated as described in the August 23, 2010 clarification memo on ''Applicability of Appendix W Modeling Guidance for the 1-hr SO_2 National Ambient Air Quality Standard.''

IV. Review of Modeled Attainment Plan

The following discussion evaluates various features of the modeling that New Hampshire used in its attainment demonstration.

A. Model Selection and Modeling Components

New Hampshire's attainment demonstration used EPA's preferred model AERMOD (version 15181) with default options (*e.g.,* without use of the ADJ_U* option) and rural dispersion coefficients for this application. The AERMOD modeling system contains the following components:

—AERMOD: The dispersion model
—AERMAP: The terrain processor for AERMOD
—AERMET: The meteorological data processor for AERMOD
—BPIP–PRIME: The building input processor
—AERMINUTE: A pre-processor to AERMET incorporating 1-minute automated surface observation system (ASOS) wind data
—AERSURFACE: The surface characteristics processor for AERMET
—AERSCREEN: A screening version of AERMOD

For any dispersion modeling exercise, the ''urban'' or ''rural'' determination of

[2] For example, if the critical emission value is 1,000 pounds of SO_2 per hour, and a suitable adjustment factor is determined to be 70 percent, the recommended longer-term average limit would be 700 pounds per hour.

a source is important in determining the boundary layer characteristics that affect the model's prediction of downwind concentrations. For SO_2 modeling, the urban/rural determination is important because AERMOD invokes a 4-hour half-life for urban SO_2 sources.

To investigate whether the rural determination was correct, EPA examined aerial imagery within 3 km of the facility and classified land use within the total area, as described in section 7.2.1.1 of the *Guideline.* Using this approach, EPA found that less than 50 percent of the land use in the area reflected urban characteristics, and that therefore, consistent with the State's selection, rural dispersion characteristics were most appropriate for use in this assessment.

The State used AERMOD version 15181, the most up-to-date version at the time the area was modeled, using all regulatory default options. AERMOD version 16216r has since become the regulatory model version. There were no updates from 15181 to 16216r that would significantly affect the concentrations predicted here.

The ADJ_U* option, which adjusts the minimum surface roughness velocity under stable, low-wind speed conditions, was not invoked by the State. Not invoking ADJ_U*, as in the demonstration submitted by New Hampshire, may result in higher modeled concentrations; therefore, this element of the model option selection is conservative (*i.e.,* unlikely to underpredict concentrations).

EPA finds this selection appropriate because this model version using default options is sufficiently up to date, the rural option selection is in line with site characteristics, and the selection of default surface roughness velocity characteristics (*i.e.,* no ADJ_U*) is not expected to underpredict concentrations.

B. Area of Analysis

New Hampshire accounted for SO_2 impacts in the modeling domain, which extends in a 50 km radius around Merrimack Station and includes both locations within and outside of the nonattainment area, through the inclusion of measured background levels and explicitly modeled emission sources. The only source New Hampshire included explicitly in the modeling was Merrimack Station. In the narrative of the January 31, 2017 SIP submittal, New Hampshire indicated that other emitters of SO_2 were accounted for in the background levels monitored within the nonattainment area. (The approach for developing the monitored background levels is described in detail in section IV.H, below.) In the submittal, New Hampshire also identified sources with annual emissions greater than 100 tons SO_2 per year outside of the nonattainment area. Specifically, in the submission to EPA, New Hampshire identified Schiller Station and Newington Station, which are both located in the New Hampshire seacoast area approximately 55 km to the east southeast of Merrimack Station, as the principal nearby emitters of over 100 tons SO_2 annually. Schiller and Newington stations are each located about 30 km from the boundary of the nonattainment area.

For the purpose of ensuring that no other sources of SO_2 were inappropriately excluded in New Hampshire's modeling, EPA reviewed its 2014 National Emissions Inventory (NEI), version 1 for sources within or nearby to the nonattainment area. During this review, EPA identified one additional source in the region that has emitted greater than 100 tons of SO_2 annually, though not within the Central New Hampshire Nonattainment Area. The source, Monadnock Paper Mills Inc. (Monadnock Paper), a pulp and paper facility located in Bennington, New Hampshire approximately 40 km to the southwest of Merrimack Station and 24 km from the closest portion of the nonattainment area, emitted 148 tons SO_2 in 2014 according to the 2014 NEI.

EPA examined whether Monadnock Paper might have an influence on the nonattainment area. The main criterion described in section 8.3 of the *Guideline* for establishing whether a secondary source is adequately represented by ambient monitoring data is whether that secondary source causes a significant concentration gradient in the vicinity of the primary source under consideration. In this context, secondary sources that do not cause a significant concentration gradient are typically considered to be adequately represented in the monitored ambient background. Based on the magnitude of emissions and distance relative to the nonattainment area, EPA believes it is unlikely that Monadnock Paper will cause a significant concentration gradient within the nonattainment area and has concluded that Monadnock Paper is adequately represented in the monitored ambient background.

To examine the possible influence of other sources on the nonattainment area, EPA considered the most recent modeling assessment for Schiller and Newington stations provided by New Hampshire to EPA in February 2017 for purposes of SO_2 designations. That modeling and EPA's evaluation of it are described in detail in the New Hampshire technical support document for EPA's intended designations for the 2010 SO_2 NAAQS, for which EPA sent letters to states on August 22, 2017. Based on this information, EPA found no significant concentration gradient due to emissions from Schiller Station or Newington Station within the nonattainment area and has concluded that both stations are adequately represented in the monitored ambient background.

Additionally, EPA believes that the background levels reasonably account for other sources influencing air quality within the nonattainment area because data used to develop background levels include hours during which those sources may have impacted the monitors.

Therefore, based on the reasoning provided in the preceding paragraphs, EPA concludes that the State appropriately accounted for these other sources through the inclusion of monitored background concentrations (see section IV.H below).

C. Receptor Grid

Within AERMOD, air quality concentration results are calculated at discrete locations identified by the user; these locations are called receptors. The receptor placement for the area of analysis selected by the State is a network of polar grids centered on Merrimack Station to a distance of 50 km in all directions. Polar grid radii were spaced at 10 degree intervals. Receptors were placed every 20 meters along the perimeter of and excluded within the facility. Polar receptors along the radii were spaced as follows:

—20-meter spacing to 200 meters;
—50-meter spacing from 200 meters to 500 meters;
—100-meter spacing from 500 meters to 2 km;
—250-meter spacing from 2 km to 10 km;
—500-meter spacing from 10 km to 30 km; and
—1,000-meter spacing from 30 km to 50 km.

In addition to the 4,349 receptors included in the description above, the State included 2,308 additional receptors in dense Cartesian arrays with 100-meter spatial resolution, over areas of expected maximum predicted concentrations based on preliminary modeling. Specifically, this was done in areas of complex terrain features at distances between 5 and 15 km of Merrimack Station.

The receptor network contained a total of 6,657 receptors, covering a

circular area of 50 km in radius, including the entirety of the nonattainment area. EPA finds that the modeling domain and receptor network are sufficient to identify maximum impacts from Merrimack Station, and are therefore adequate for characterizing the nonattainment area.

D. Meteorological Data

New Hampshire used AERMOD's meteorological data preprocessor AERMET (version 15181) with 2 years of surface and concurrent upper air meteorological data. The State relied on site-specific surface observations collected at Merrimack Station in Bow, New Hampshire during the 23-month period from January 1994 through November 1995 at five meteorological tower measurement levels and fifteen SODAR (Sound Detection and Ranging) levels. In addition, the State used surface observations from the National Weather Service (NWS) station at Concord Municipal Airport in Concord, New Hampshire (WBAN Station No. 14745) in the following ways: (1) To supplement site-specific surface data with additional parameters (sky cover, ceiling height, and surface pressure) not available in the site-specific meteorological data, (2) to substitute for missing site-specific wind observations (51 hours of the 16,776 hours of the 23 month period), and (3) to extend the meteorological dataset through December 1995 to develop a full 2-year analysis period. Concord Municipal Airport is approximately 7 km to the north-northwest of Merrimack Station. The State used coincident upper air observations from different NWS stations located in Portland, Maine (WBAN Station No. 14764) from January 1, 1994 through September 21, 1994, and Gray, Maine (WBAN Station No. 54762) from September 22, 1994 through December 31, 1995. (The Portland station ceased its upper air observations on September 22, 1994, when the Gray station began its upper air observations.) The Portland station is around 110 km to the northeast of Merrimack and the Gray station is around 130 km to the northeast of Merrimack.

New Hampshire also considered the use of more recent (2008–2012) NWS data collected at Concord Municipal Airport. The State cited two potential advantages of using this alternative dataset, mainly that it was significantly newer and included data derived from 1-minute resolution observations using the AERMINUTE preprocessor to AERMET. New Hampshire weighed these considerations against the advantages of using the 1994–1995 site-specific data, specifically: (1) The observation height for the site-specific data is closer in height to the stacks at Merrimack Station than the 8 meter collection height for the NWS data; (2) the site-specific wind direction data are more representative of the channeling effect within the Merrimack River valley in the location of Merrimack Station; and (3) use of the site-specific data would be consistent with previous modeling of Merrimack, which relied on the site-specific meteorology.

EPA concurs with the choice of surface and upper air meteorological data inputs as being appropriately representative of site-specific meteorology. Specifically, EPA has judged the representativeness of the measured surface meteorological data according to the following four factors, as listed in section 8.4.1(b) to the *Guideline:* (1) The proximity of the meteorological monitoring site to the area under consideration, (2) the complexity of the terrain, (3) the exposure of the meteorological monitoring site, and (4) the period of time during which data are collected. Regarding proximity (factor 1), the site-specific data is preferred over the more distant NWS data, though both data sources are sufficiently close to be appropriately representative of the site. Regarding the complexity of terrain (factor 2), both Concord and the site-specific location show wind flow patterns with predominant northwest flow and secondary southeast flows, but the site-specific data show a more pronounced valley channeling effect with fewer hours with wind flow in other directions. In terms of exposure of the site, neither location appears to be exposed in a way that would have biased data collection (factor 3). Finally, regarding the data collection time period (factor 4), the more recent data at the NWS station would allow for use of 1-minute resolution data for more accurate wind data inputs, and would be preferred for this factor. Notwithstanding the age of the onsite data, current land-use is comparable to historical land-use, so that the historic meteorological data are sufficiently representative of current conditions. In summary, based on the four factors described above, despite the availability of recent nearby NWS data, the analysis suggests that the 1994–1995 site-specific data augmented with NWS data are more representative of conditions pertinent to releases at Merrimack Station. The 23 months of site-specific data supplemented with 1 additional month of NWS data represent an appropriate study period, consistent with EPA guidance contained in section 8.4.2(e) of the *Guideline,* which states that at least 1 year of site-specific meteorological data are required to ensure that worst-case meteorological conditions are adequately represented in the model results. The upper air stations selected for the analysis are the closest sites and are suitably representative of the upper air in the Central New Hampshire Nonattainment Area, and are therefore most appropriate for developing upper air profiles for the State's modeling analysis.

The State used AERSURFACE version 13016 using land cover data from the 1992 National Land Cover Dataset (NLCD) for both surface data collection locations to estimate the surface characteristics (albedo, Bowen ratio, and surface roughness length) of the area of analysis. The State estimated surface roughness length values for 12 spatial sectors out to the recommended radius of 1 km at a monthly temporal resolution for average surface moisture conditions. EPA concurs with New Hampshire's approach to developing relevant surface characteristics for use in processing meteorological data for this area.

E. Source Characterization

EPA also reviewed the State's source characterization in its modeling assessment, including source types, use of accurate stack parameters, and inclusion of building dimensions for building downwash. The State's source characterization in its modeling demonstration was consistent with the recommendations included in the *Guideline.* The source used actual stack height (445 feet), which EPA determined to be good engineering practice (GEP) height using BPIP–PRIME. The State also adequately characterized the source's building layout and location, as well as the stack parameters, *e.g.,* exit temperature, exit velocity, location, and diameter. EPA verified the position of buildings and stacks using aerial imagery and relevant stack parameters based on permit conditions.

F. Emissions Data

New Hampshire included maximum allowable 1-hour emissions from Merrimack Station in its modeled attainment demonstration for the Central New Hampshire Nonattainment Area. The State indicated that SO_2 air quality in the area is almost entirely characterized by emissions from the two primary boilers at Merrimack Station, and this informed the State's decision to only explicitly model SO_2 emissions from Merrimack Station. Additional

units (*i.e.,* two peak combustion turbines, an emergency generator, an emergency boiler, and a fire pump) at Merrimack Station operate infrequently and were treated as intermittent sources; therefore, they were excluded from the modeling.[3] The State provided historical (2011–2014) counts of hours of operation for these units to bolster its contention that these units do not contribute to the annual distribution of daily maximum 1-hour concentrations. Specifically, during the 2011–2014 period, the two turbines were operated during an average of 40 and 45 hours per year, the emergency generator during an average of 17 hours per year, the emergency boiler during an average of 43 hours per year, and the fire pump during an average of 3 hours per year. The maximum annual usage of any of these pieces of equipment during that time was 114 hours for combustion turbine 1 in 2014. The emergency generator is limited through section Env-A 1311.02(a) of New Hampshire's SIP-approved air pollution control regulations, to a maximum of 500 hours of operation during any consecutive 12-month period. The fire pump is limited to a maximum of 100 hours for maintenance and testing during any consecutive 12-month period because it is subject to EPA's New Source Performance Standards for stationary internal combustion engines, specifically 40 CFR 60.4211(e). These utilization levels and patterns are consistent with EPA's assessment of intermittent emissions based on the March 1, 2011 EPA guidance. EPA believes that this treatment is appropriate for those units in this area.

New Hampshire provided attainment modeling used to support its establishment of emission rates for Merrimack Station. In establishing the emission limits, the State followed EPA's April 2014 guidance by using modeling to develop a critical emission value and adjustment factor to establish a longer term limit for Merrimack. The State modeled three ''normal operating scenarios,'' comprised of one scenario with maximum operation of both utility boilers (scenario 1), and two other scenarios with maximum operation of each boiler individually (scenarios 2 and 3, respectively). In 2011, New Hampshire issued a permit (TP–0008) for Merrimack Station that contained, among other things, SO_2 emission limits associated with a flue gas desulfurization (FGD) system. The FGD was required to be installed at Merrimack Station by the New Hampshire legislature. *See* New Hampshire Revised Statutes Annotated (RSA) 125–O:11. EPA approved the SO_2-related source-specific requirements of that permit into the New Hampshire SIP as part of the State's regional haze SIP submittal. *See* 77 FR 50602 (August 22, 2012). In September 2016, New Hampshire issued a second permit (TP–0189) for Merrimack Station, which included SO_2 emission limits specifically designed to ensure compliance with the SO_2 NAAQS. The emission limits included in TP–0189, and which New Hampshire has proposed for inclusion in the State's SIP, apply at all times. The State's modeling established a critical emission value of 2,544 pounds (lb) SO_2 per hour for scenario 1, which the State concluded is comparably stringent to a 7-boiler operating day rolling average limit of 0.39 lb SO_2 per million British thermal units (MMBtu). The 7-boiler operating day rolling average emissions limits that would be comparably stringent to the 1-hour critical emission value under scenarios 2 and 3 would be 0.92 and 0.47 lb SO_2/MMBtu, respectively. Because scenario 1 was the basis for establishing this limit, and the limit (0.39 lb/MMBtu) is more stringent than the limits that would have been established for either scenario 2 or 3 (0.92 and 0.47 lb/MMBtu, respectively), using emissions from scenario 1 as the basis of the modeling analysis is appropriate. See section IV.G.2 below for further details on the emissions in the State's attainment modeling, including discussion of the State's conclusion of comparable stringency with the critical emission value.

In summary, EPA concurs with the State's selection in its attainment demonstration modeling of emissions from utility boilers at Merrimack Station, and exclusion of additional emission sources at Merrimack due to their intermittent operation.

G. Emission Limits

An important prerequisite for approval of a nonattainment plan is that the emission limits that provide for attainment be quantifiable, fully enforceable, replicable, and accountable. *See* General Preamble at 13567–68. The limits that New Hampshire's plan relies on for Merrimack Station are expressed as 7-boiler operating day rolling average limits, where a boiler operating day is defined as a 24-hour period that begins at midnight and ends the following midnight during which any fuel is combusted at any time in the boiler; it is not necessary for the fuel to be combusted for the entire 24-hour period. Therefore, part of the review of New Hampshire's nonattainment plan must address the use of these limits, both with respect to the general suitability of using such limits for this purpose and with respect to whether the particular limits included in the plan have been suitably demonstrated to provide for attainment. The first subsection that follows addresses the enforceability of the limits in the plan, and the second subsection that follows addresses in particular the 7-boiler operating day average limits.

1. Enforceability

On September 1, 2016, New Hampshire issued a permit, TP–0189, to Public Service of New Hampshire d/b/a Eversource Energy for Merrimack Station. The permit became effective and enforceable upon issuance, and was issued pursuant to RSA 125–C:11. These requirements are more stringent than the applicable measures for the facility, which require 90% reduction for both MK1 and MK2, as incorporated into the SIP by reference to Table 4, Items 6 and 8 of TP–0008. EPA considers the 30-boiler operating day limits included in TP–0189 (specifically, Table 4, Item 2) to supersede the conditions specified in Table 4, Items 6 and 8 of TP–0008.

Monitoring, testing, and recordkeeping requirements related to all of the permit's SO_2 emission limits are clearly described in the permit and ensure that the limits are quantifiable, fully enforceable, and replicable. The accountability of the limits is established through the State's inclusion of the permit limits in its nonattainment plan, and its modeling demonstration using the 1-hour emission levels that are comparably stringent to the permit limits. In accordance with EPA policy, the 7-boiler operating day average limit for Merrimack Station is set at a lower level than the critical emission value used in the attainment demonstration; the relationship between these two values is discussed in more detail in the following section.

2. Longer-Term Average Limits

New Hampshire developed a critical emission value for each of the three normal operating scenarios (see section IV.F above) using a target concentration threshold of 183.2 micrograms per cubic meter (μg/m^3) by subtracting a background value of 12.8 μg/m^3, the

[3] The March 1, 2011 EPA memorandum from Tyler Fox to EPA Regional Air Division Directors entitled ''Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard,'' which also includes information relevant to modeling for SO_2, addresses treatment of intermittent sources. This guidance indicates that air permitting authorities have discretion to exclude certain types of intermittent emissions for modeling the 1-hour NAAQS on a case-specific basis.

highest hour-by-season background value (see section IV.H below), from 196 μg/m³, which is equivalent to the level of the NAAQS of 75 ppb.[4] The State then divided the target concentration threshold by the maximum predicted 99th percentile concentration using a unit emission rate (*i.e.,* 1 lb/hr) for each normal operating scenario to establish the critical emission value for each scenario (*e.g.,* 2,544 lb/hr, equivalent to a limit of 0.54 lb/MMBtu at full operating load, for scenario 1).

Using hourly emission data provided by EPA's Air Markets Program Data database for Merrimack Station for the period between July 4, 2013 and March 30, 2015 (*i.e.,* since the FGD system became operational), the State derived adjustment factors for longer-term averaging periods for each scenario. Because the dataset includes only data from Merrimack Station using the control technology, it is appropriate for use in developing adjustment factors. Prior to deriving the adjustment factors, the State removed erroneous data points from the dataset based on information provided by the facility. The adjustment factors were calculated as the ratio of the 99th percentile of mass emissions for the longer-term period to the 99th percentile hourly mass emissions. For the rolling 7-day averaging period, the adjustment factor was 0.73 for each of the three scenarios. That is, the 7-day mass emission rate limit would need to be 0.73 times (or 27% lower than) the critical emission value to have comparable stringency as a 1-hour rate limit. The 7-day adjustment factor of 0.73 for Merrimack Station is similar to 0.71, EPA's average 30-day adjustment factor for sources with wet scrubbers (derived from a database of 210 sources) as listed in appendix D of the April 2014 guidance. The State then derived emission limits for each scenario on an emission per heat-input basis, and selected the lowest level for the 7-day averaging period of 0.39 lb/MMBtu.

Based on a review of the State's submittal, EPA believes that the 7-boiler operating day average limit for Merrimack Station provides a suitable alternative to establishing a 1-hour average emission limit for this source. The State has used a suitable database in an appropriate manner and has thereby applied an appropriate adjustment, yielding an emission limit that has comparable stringency to the 1-hour average limit that the State determined would otherwise have been necessary to provide for attainment. While the 7-boiler operating day average limit allows occasions in which emissions may be higher than the level that would be allowed with the 1-hour limit, the State's limit compensates by requiring average emissions to be lower than the level that would otherwise have been required by a 1-hour average limit. For the reasons described above and explained in more detail in EPA's April 2014 guidance for SO_2 nonattainment plans, EPA finds that appropriately set longer-term average limits provide a reasonable basis by which nonattainment plans may provide for attainment. Based on our review of this general information as well as the particular information in New Hampshire's plan, EPA finds that the 7-boiler operating day average limit for Merrimack Station will provide for attainment of the SO_2 NAAQS.

In the April 2014 guidance for SO_2, EPA also described possible supplemental limits on the frequency and/or magnitude of elevated emissions to strengthen the justification for the use of longer-term average limits to protect against NAAQS violations. One option provided in the guidance regarding this topic is the use of relatively shorter averaging times, which provide less allowance of emission spikes than would longer averaging times, *i.e.,* the 30-day averaging time. In this instance, the emission limit for Merrimack Station is on a 7-boiler operating day average basis and the limit applies at all times. Furthermore, the adjustment factor used to derive the limit is similar to 0.71, EPA's average 30-day adjustment factor for sources with wet scrubbers as listed in appendix D of the April 2014 guidance, meaning that the factor used to adjust the emission limit downward is more pronounced for a 7-day period than would typically be expected. Based on these considerations, EPA believes that the 7-boiler operating day limits are sufficiently protective of the NAAQS without application of an additional, supplemental limit.

H. Background Concentrations

To develop background concentrations for the nonattainment area, the State of New Hampshire relied on 2012–2014 data from two monitors within the nonattainment area: The Pembroke monitor, Air Quality System (AQS) number 33–013–1006, and the Concord monitor, AQS number 33–013–1007. The Pembroke monitor is located on Pleasant Street in Pembroke, New Hampshire, about 1.3 km to the southeast of Merrimack Station, and the Concord monitor is located at Hazen Drive in Concord, New Hampshire, about 9.4 km to the north-northwest of Merrimack Station. Each of these monitors was sited to record neighborhood scale exposure levels rather than regional background levels; there are currently no regional background monitors in the Central New Hampshire Nonattainment Area. Per section 8.3.1.a of the *Guideline,* background air quality should not include the ambient impacts of the source under consideration. Both the Pembroke and Concord monitors reflect impacts attributable to Merrimack Station. One solution to develop background concentrations from monitoring data around an isolated source, as described in section 8.3.2.c.i of the *Guidance,* is to exclude monitor measurements collected when wind is from a 90° sector centered on the source. Due to the low wind speeds and swirling winds characteristic of Merrimack Station's river valley location, emissions from the source may contribute to the monitors even when the wind direction is outside of the 90° sector. Therefore, the State determined that the 90° exclusion sector approach was not appropriate for this application, and selected an alternative approach to develop background levels. Specifically, the State compiled an ambient concentration database using the lower observed value for the two monitors' hourly values as representing regional background levels. This approach accounts for area and mobile sources and more distant sources that were not modeled explicitly but affect SO_2 levels in the nonattainment area without also double-counting impacts from Merrimack Station, which was modeled explicitly. Using this approach, EPA finds the State's treatment of SO_2 background levels to be suitable for the modeled attainment demonstration.

I. Summary of Results

The modeling analysis upon which the State relied in establishing a critical emission value for setting emission limits for Merrimack Station results in concentrations of no greater than 196.0 μg/m³, which is below the level of the 1-hour primary SO_2 NAAQS of 196.4 μg/m³. EPA agrees with the State that these results indicate that emissions at the critical emission value for Merrimack Station provide for attainment of the 1-hour SO_2 NAAQS.

[4] Using a numerical conversion factor of 2.619 μg/m³ per ppb, the 2010 SO_2 NAAQS of 75 ppb is equivalent to 196.4 μg/m³. The state rounded 196.4 μg/m³ down to a more protective level of 196 μg/m³. EPA is using the lower value in this case because it is consistent with the State's analysis and is also protective of the NAAQS.

V. Review of Other Plan Requirements

A. Emissions Inventory

The emissions inventory and source emission rate data for an area serve as the foundation for air quality modeling and other analyses that enable states to: (1) Estimate the degree to which different sources within a nonattainment area contribute to violations within the affected area; and (2) assess the expected improvement in air quality within the nonattainment area due to the adoption and implementation of control measures. As noted above, the State must develop and submit to EPA a comprehensive, accurate, and current inventory of actual emissions from all sources of SO_2 emissions in each nonattainment area, as well as any sources located outside the nonattainment area which may affect attainment in the area. *See* CAA section 172(c)(3).

In its plan, New Hampshire included a current emissions inventory for the nonattainment area and also for the three-county area of Hillsborough, Merrimack, and Rockingham Counties based on the 2011–2015 period. The State principally relied on 2014 as the most complete and representative record of annual SO_2 emissions because it coincided with EPA's National Emissions Inventory (NEI), which includes a comprehensive inventory of all source types. The State allocated 2014 NEI version 1 emissions from the portion of each county within the nonattainment area using city- and town-level population (for area and non-road mobile sources) and vehicle miles traveled (VMT; for on-road mobile sources) statistics. The State included emissions from point sources (*e.g.,* Merrimack Station) to the area based on location. The State calculated emissions for the area from some types of sources based on county-level emissions. A summary of the State's emissions inventories for 2011, 2014, and 2018 are presented in Table 1. Based on the State's inventory, of the 5,471 tons SO_2 emitted in 2014 within the three county area, 1,480 tons were emitted within the nonattainment area. Merrimack Station emitted 1,044 tons SO_2 in 2014. These emissions levels are much lower than historical emissions levels; for example, in 2011, Merrimack Station emitted 22,420 tons SO_2.

TABLE 1—SUMMARY OF NEW HAMPSHIRE'S INVENTORY OF ACTUAL SO_2 EMISSIONS FOR THE CENTRAL NEW HAMPSHIRE AREA

Year	Hillsborough, Merrimack, and Rockingham Counties (tons)	Central New Hampshire non-attainment area (tons)	Merrimack Station (tons)
2011	24,934	22,398	22,420
2014	5,471	1,480	1,044
2018 (projected)	6,966	2,473	1,927

New Hampshire also developed a projected emission inventory for the 2018 attainment year. The emissions projection indicates 1,927 tons of SO_2 from Merrimack Station and a total of 2,473 tons of SO_2 within the nonattainment area; however, these projections rely on a 90% reduction in SO_2 emissions from Merrimack Station, which is less stringent than the at least 93.4% reduction incorporated into the permit New Hampshire issued for Merrimack Station on September 1, 2016, TP–0189.

EPA agrees that the State's emissions inventories are appropriate because they rely on well-established and vetted estimates of emissions for the current period and attainment year, respectively.

B. RACM/RACT

CAA section 172(c)(1) requires that each attainment plan provide for the implementation of all reasonably available control measures (RACM) as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology (RACT)) and shall provide for attainment of the NAAQS. EPA interprets RACM, including RACT, under section 172, as measures that a state determines to be reasonably available and which contribute to attainment as expeditiously as practicable for existing sources in the area.

In its January 31, 2017 SIP submittal, New Hampshire identified the operational and SO_2 emission limits contained in Merrimack Station's permit, TP–0189, as meeting RACM/RACT. New Hampshire's plan for attaining the 1-hour SO_2 NAAQS in the Central New Hampshire Nonattainment Area is based on the operational and emission limitations contained in Merrimack Station's permit. Specifically, Merrimack Station's permit limits SO_2 emissions from the MK1 and MK2 boilers at Merrimack Station to 0.39 lb/MMBtu on a 7-boiler operating day rolling average (achieved through operation of the FGD), which the State demonstrated was comparably stringent to the critical emission value that provides for attainment of the NAAQS, as described in section IV.G.2 above. New Hampshire's nonattainment plan includes the SO_2 control measures required by the permit, which was effective immediately upon issuance on September 1, 2016. New Hampshire has determined that these measures suffice to provide for timely attainment, and plans to incorporate relevant conditions contained in TP–0189 into Merrimack's title V operating permit (TV–0055).

The air modeling analysis submitted to EPA during the development of the SO_2 limits in TP–0189 confirms that these limits are protective of the NAAQS, as described in section IV. Because the modeling demonstrates attainment using emission limits contained in Merrimack Station's permit, TP–0189, the State determined that controls for SO_2 emissions at Merrimack Station are appropriate in the Central New Hampshire Area for purposes of attaining the 2010 SO_2 NAAQS. Accordingly, New Hampshire only completed a RACM/RACT analysis for Merrimack Station because the air quality modeling showed that the SO_2 emission reductions required by TP–0189 will be sufficient to ensure that the nonattainment area achieves attainment with the SO_2 NAAQS. EPA believes that New Hampshire's approach is consistent with EPA's April 2014 guidance, which indicates that ''[a]ir agencies should consider all RACM/RACT that can be implemented in light of the attainment needs for the affected area(s).''

The Central New Hampshire Area is currently showing an attaining design value for 2014–2016, and has been since

the 2012–2014 period, which means that attainment of the NAAQS is as expeditious as practicable.

Based on New Hampshire's modeling demonstration, which accounted for the SO_2 emission limits contained in Merrimack Station's permit, TP–0189, the Central New Hampshire Area is projected to attain the 2010 SO_2 NAAQS by the 2018 attainment date. Because the area is currently attaining the 2010 SO_2 NAAQS, EPA proposes to find that the control strategy will ensure attainment of the NAAQS by the required attainment date.

The State's plan also includes a broader discussion of the SO_2 control strategy beyond Merrimack Station's permit, TP–0189. Merrimack Station is also subject to requirements of the Mercury and Air Toxics Standards (MATS), which promotes reductions at subject facilities of certain hazardous air pollutants, including hydrochloric acid; such reductions are achieved at Merrimack Station through the operation of the FGD system, which concurrently reduces emissions of SO_2. New Hampshire also notes in its nonattainment plan the anticipated 73% reduction in SO_2 emissions among upwind states subject to EPA's Cross State Air Pollution Rule (CSAPR), which will lessen the contribution of sources from other states into the nonattainment area in future years. New Hampshire also described emissions reductions at Schiller Station as part of statewide efforts to reduce SO_2, as well as other state rules.

EPA concurs with New Hampshire's approach and analysis, and proposes to conclude that the State has satisfied the requirement in section 172(c)(1) to adopt and submit all RACM as needed to attain the SO_2 NAAQS as expeditiously as practicable.

C. New Source Review (NSR)

EPA last approved New Hampshire's Env-A 618 nonattainment new source review rules on May 25, 2017 (82 FR 24057). These rules provide for appropriate new source review for SO_2 sources undergoing construction or major modification in the Central New Hampshire Nonattainment Area without need for modification of the approved rules. Therefore, EPA concludes that this requirement has already been met for this area.

D. Reasonable Further Progress (RFP)

New Hampshire concluded that the appropriate control measures were implemented as expeditiously as practicable in order to ensure attainment of the standard by the applicable attainment date. Specifically, the State implemented its main control strategy, *i.e.,* establishment of federally enforceable SO_2 emissions limits and operational conditions in TP–0189 for Merrimack Station in September 2016. New Hampshire concluded that this plan therefore provides for RFP in accordance with the approach to RFP described in EPA's guidance. EPA concurs and proposes to conclude that the plan provides for RFP.

E. Contingency Measures

As discussed in our guidance, Section 172(c)(9) of the CAA defines contingency measures as such measures in a SIP that are to be implemented in the event that an area fails to make RFP, or fails to attain the NAAQS, by the applicable attainment date. Contingency measures are to become effective without further action by the state or EPA, where the area has failed to (1) achieve RFP or (2) attain the NAAQS by the statutory attainment date for the affected area. These control measures are to consist of other available control measures that are not included in the control strategy for the nonattainment area SIP. EPA guidance describes special features of SO_2 planning that influence the suitability of alternative means of addressing the requirement in section 172(c)(9) for contingency measures for SO_2. Because SO_2 control measures are by definition based on what is directly and quantifiably necessary emissions controls, any violations of the NAAQS are likely related to source violations of a source's permit terms. Therefore, an appropriate means of satisfying this requirement for SO_2 is for the state to have a comprehensive enforcement program that identifies sources of violations of the SO_2 NAAQS and to undertake an aggressive follow-up for compliance and enforcement.

For its contingency program, New Hampshire proposed to continue to operate a comprehensive program to identify sources of violations of the SO_2 NAAQS and undertake aggressive compliance and enforcement actions, including expedited procedures for establishing consent agreements pending the adoption of the revised SIP. New Hampshire's program for enforcement of SIP measures for the 2010 SO_2 NAAQS was approved by EPA on June 15, 2016. *See* 81 FR 44542. As EPA stated in its April 2014 guidance, EPA believes that this approach continues to be a valid approach for the implementation of contingency measures to address the 2010 SO_2 NAAQS.

Based on the contingency measures identified by the State in its plan submittal, EPA believes that New Hampshire's plan provides for satisfying the contingency measure requirement. EPA concurs and proposes to approve New Hampshire's plan for meeting the contingency measure requirement in this manner.

VI. Additional Elements of New Hampshire's Submittal

A. Conformity

The State addresses general conformity and transportation conformity requirements as they apply to the nonattainment area. Generally, as set forth in section 176(c) of the Clean Air Act, conformity requires that actions by federal agencies do not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS. General conformity applies to federal actions, other than certain highway and transportation projects, if the action takes place in a nonattainment area or maintenance area (*i.e.,* an area which submitted a maintenance plan that meets the requirements of section 175A of the CAA and has been redesignated to attainment) for ozone, particulate matter, nitrogen dioxide, carbon monoxide, lead, or SO_2. EPA's General Conformity Rule (40 CFR 93.150 to 93.165) establishes the criteria and procedures for determining if a federal action conforms to the SIP. With respect to the 2010 SO_2 NAAQS, federal agencies are expected to continue to estimate emissions for conformity analyses in the same manner as they estimated emissions for conformity analyses under the previous NAAQS for SO_2. EPA's General Conformity Rule includes the basic requirement that a federal agency's general conformity analysis be based on the latest and most accurate emission estimation techniques available (40 CFR 93.159(b)). When updated and improved emissions estimation techniques become available, EPA expects the federal agency to use these techniques. New Hampshire addresses general conformity under SIP-approved state rule Env-A 1500.

Federal Highway and Federal Transit Administration projects are subject to transportation conformity rather than general conformity requirements, with some exceptions. New Hampshire asserts in its plan that due to minimal impact on SO_2 from combustion of gasoline and diesel fuels, transportation conformity rules do not generally apply to SO_2 unless the EPA Regional Administrator or the state air director finds that its transportation-related SO_2 emissions are a significant contributor to fine particulate matter as a precursor.

This reasoning is consistent with EPA's April 2014 guidance and EPA proposes to conclude that New Hampshire's plan meets our guidance and rule requirements with regard to general and transportation conformity.

B. Changes in Allowable Emissions

The State quantified the changes in allowable emissions expected to result from implementation of its nonattainment area plan. To do so, the State compared allowable annual emissions at Merrimack Station prior to installation of the FGD control system with those after the system was operational and with those with the conditions of TP–0189 in place (*i.e.,* allowable emissions under the plan). Prior to the effective date of TP–0189, under the conditions of TP–0008 (*see* 77 FR 50602), Merrimack Station was permitted to operate the MK1 boiler through the bypass stack (*i.e.,* now the emergency stack) for no more than 840 hours during any consecutive 12-month period and thereby bypass SO_2 controls; the MK2 boiler is unable to operate through the bypass stack. The State quantified emissions from these boilers which were allowed prior to installation of the FGD and the effective date of TP–0008. Then, the State quantified emissions from the MK1 and MK2 boilers under the provisions of TP–0008 (*i.e.,* using a 90% emissions reduction). Finally, the State quantified emissions for MK1 and MK2 allowed under the provisions of TP–0189, *i.e.,* assuming an average of 0.39 lb/MMBtu. A summary of these allowable emissions is presented in Table 2. According to the plan, allowable annual SO_2 emissions prior to the FGD installation (and the conditions of TP–0008) were 82,537 tons, compared to 8,254 tons under the permit conditions of TP–0008, and 8,047 tons under the nonattainment plan (namely the SO_2 emissions limit for NAAQS compliance included in TP–0189). That is, the State expects implementation of the plan to allow 207 tons fewer than prior to plan implementation, and 74,490 tons fewer than prior to installation and operation of the FGD.

TABLE 2—SUMMARY OF ANNUAL ALLOWABLE SO_2 EMISSIONS FOR THE MK1 AND MK2 BOILERS AT MERRIMACK STATION

	Total allowable emissions	Difference in allowable emissions from prior to TP–0008 (tons)	Difference in allowable emissions from prior to TP–0189 (tons)
Prior to TP–0008	82,537		
With TP–0008	8,254	[a] −74,283	
Nonattainment Area Plan (With TP–0189)	8,047	[a] −74,489	[a b] −206

[a] Reported negative emissions values for differences indicate emission reductions.
[b] New Hampshire reported a difference of 206 tons compared with the numerical difference of 207 tons between the reported total allowable emissions. This slight difference can be attributed to rounding.

C. Air Quality Trends

New Hampshire also included trends in ambient monitoring data for the nonattainment area. In its nonattainment plan, the State shows that ambient concentrations in the area have dropped markedly since 2011, when Merrimack Station began operation of its FGD system under the SIP-approved conditions of TP–0008, and are now below 75 ppb, the level of the NAAQS. The monitored design value for the Pembroke monitor (AQS number 33–013–1006), consistently the highest in the area, was 23 ppb for 2012 to 2014, and 20 ppb for both 2013 to 2015 and 2014 to 2016.

D. Compliance With Section 110(a)(2) of the CAA

Section 172(c)(7) of the CAA requires nonattainment SIPs to meet the applicable provisions of section 110(a)(2) of the CAA. While the provisions of 110(a)(2) address various topics, EPA's past determinations suggest that only the section 110(a)(2) criteria linked with a particular area's designation and classification are relevant to section 172(c)(7). This nonattainment SIP submittal satisfies all applicable criteria of section 110(a)(2) of the CAA, as evidenced by the State's nonattainment new source review program which addresses 110(a)(2)(I), the included control strategy, and the associated emissions limits which are relevant to 110(a)(2)(A). In addition, EPA approved the State's SO_2 infrastructure SIP on May 25, 2017 (82 FR 24057). EPA will take action in a separate rulemaking on the remaining portion of the State's infrastructure SIP, the so-called SO_2 ''good neighbor'' or ''interstate transport'' SIP to satisfy section 110(a)(2)(D)(i)(I) of the CAA. EPA is proposing to conclude that the State has meet the requirements of 172(c)(7) of the CAA.

E. Equivalency Techniques

Section 172(c)(8) of the CAA states that upon application by any state, the Administrator may allow the use of equivalent modeling, emission inventory, and planning procedures, unless the Administrator determines that the proposed techniques are, in the aggregate, less effective than the methods specified by the Administrator.

The State's nonattainment SIP indicates that it followed existing regulations, guidance, and standard practices when conducting modeling, preparing the emissions inventories, and implementing its planning procedures. Therefore, the State did not use or request approval of alternative or equivalent techniques as allowed under of the CAA and EPA is proposing to conclude that the State's nonattainment SIP meets the requirements of section 172(c)(8) of the CAA.

VII. EPA's Proposed Action

EPA has determined that New Hampshire's SO_2 nonattainment plan meets the applicable requirements of sections 110, 172, 191, and 192 of the CAA. EPA is proposing to approve New Hampshire's January 31, 2017 SIP submission for attaining the 2010 1-hour SO_2 NAAQS for the Central New Hampshire Nonattainment Area and for meeting other nonattainment area planning requirements. This SO_2 nonattainment plan includes New Hampshire's attainment demonstration for the SO_2 nonattainment area. The nonattainment area plan also addresses requirements for RFP, RACT/RACM, enforceable emission limits and control measures, base-year and projection-year emission inventories, and contingency measures.

In the January 31, 2017 submittal to EPA, New Hampshire included the applicable monitoring, testing, recordkeeping, and reporting

requirements contained in Merrimack Station's permit, TP–0189, to demonstrate how compliance with Merrimack Station's SO_2 emission limit will be achieved and determined. EPA is proposing to approve into the New Hampshire SIP the provisions of Merrimack Station's permit, TP–0189, that constitute the SO_2 operating and emission limits and their associated monitoring, testing, recordkeeping, and reporting requirements. EPA is proposing to approve these provisions into the State's SIP through incorporation by reference, as described in section VIII, below. EPA's analysis is discussed in this proposed rulemaking.

EPA is not proposing to remove from the existing New Hampshire SIP, Table 4, items 6, 8, and 10 contained in Merrimack Station's July 2011 permit, TP–0008, because EPA has not received a request from the State to do so. *See* 52.1520(d) EPA-approved State Source specific requirements. However, EPA considers those provisions to be superseded by the conditions of TP–0189, which are more stringent, and which are to be incorporated into the SIP in this proposed action. Specifically, two of the provisions, items 6 and 8 from Table 4, relate to SO_2 emissions limits that have been superseded by Merrimack Station's September 2016 permit, TP–0189. Item 10 from Table 4 has also been superseded by Merrimack Station's September 2016 permit, TP–0189, in that the existing SIP provision allowed operation of one of Merrimack Station's two boilers, MK1, for up to 840 hours in any consecutive 12-month period through the emergency bypass stack, *i.e.,* not through the FGD. Each of the corresponding provisions of Merrimack Station's September 2016 permit, TP–0189, are more stringent than those existing SIP provisions. EPA is taking public comments for thirty days following the publication of this proposed action in the **Federal Register**. We will take all comments into consideration in our final action.

VIII. Incorporation by Reference

In this rule, EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is proposing to incorporate by reference certain federally enforceable provisions of Merrimack Station's permit, TP–0189, effective on September 1, 2016. Specifically, the following provisions of that permit are proposed to be incorporated by reference: Items 1, 2, and 3 in Table 4 (''Operating and Emission Limits''); items 1 and 2 in Table 5 (''Monitoring and Testing Requirements''); items 1 and 2 in Table 6 (''Recordkeeping Requirements''); and items 1 and 2 in Table 7 (''Reporting Requirements'').

EPA has made, and will continue to make, these materials generally available through *www.regulations.gov* and/or at the EPA Region 1 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

IX. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this proposed action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Order 12866 58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by Reference, Intergovernmental relations, Reporting and recordkeeping requirements, Sulfur oxides.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: September 15, 2017.

Ken Moraff,

Acting Regional Administrator, EPA New England.

[FR Doc. 2017–20721 Filed 9–27–17; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 82

[EPA–HQ–OAR–2017–0213; FRL–9968–67–OAR]

RIN 2060–AT43

Protection of Stratospheric Ozone: Refrigerant Management Regulations for Small Cans of Motor Vehicle Refrigerant

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing this action to correct an editing oversight that lead to a potential conflict in a prior rulemaking as to whether or not containers holding two pounds or less of non-exempt substitute refrigerants for use in motor vehicle air conditioning that are not equipped with a self-sealing valve can be sold to persons that are not certified technicians, provided those small cans were manufactured or imported prior to January 1, 2018. This action clarifies that those small cans may continue to be sold to persons that are not certified as technicians under sections 608 or 609 of the Clean Air Act. In the ''Rules and Regulations'' section of this **Federal Register**, EPA is publishing this action as a direct final